



## 1. PERFORMANCE

- 1) Measuring range : 2-24 %  
Number of pump strokes : 1/2 (50ml)
- 2) Sampling time : 2 minutes/1/2 pump strokes
- 3) Shelf life : 2 years
- 4) Operating temperature : 0 ~ 40 °C
- 5) Reading : Direct reading from the scale calibrated by 1/2 pump strokes
- 6) Colour change : White → Brown

## 2. RELATIVE STANDARD DEVIATION

RSD-low : 5 %    RSD-mid. : 5 %    RSD-high : 5 %

## 3. CHEMICAL REACTION

Oxygen reacts with alkaline pyrogallol.

## 4. CALIBRATION OF THE TUBE

STANDARD GAS CYLINDER METHOD

## 5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	%	Coexistence
Hydrogen sulphide	The accuracy of reading is not affected.	2	Higher readings are given.
Nitrogen dioxide	∕	2	∕
Sulphur dioxide	Similar stain is produced.	2	∕
Carbon dioxide	∕	5	∕

## 6. NOTE

- 1) Coexistence of more than 5% of Carbon dioxide (CO<sub>2</sub>) gives higher reading and the reading from the scale should be corrected with the following correction table.
- 2) The No.159SA and SB tubes are necessary to heat the part of the temperature indicator until the indicator discolours from Red to Purple first. In case of No.159SA, it is necessary to use direct flame such as a match or lighter to heat it up a non-hazardous area. No.159SB consists of a thin aluminum belt rolled on the indicator and chemical liquid in a small bottle. When the liquid is dropped on the aluminum fully, a chemical reaction occurs with generating smoke and temperature comes high. Therefore, the No.159SB is possible to use in a hazardous area.

CO<sub>2</sub> CORRECTION TABLE

Tube Readings (%)	Corrected Concentration (%)			
	CO <sub>2</sub> 5%	CO <sub>2</sub> 10%	CO <sub>2</sub> 15%	CO <sub>2</sub> 20%
2	2.0	—	—	—
6	6.0	2.5	—	—
9	9.0	6.4	—	—
12	12.0	10.0	7.0	6.0
15	15.0	12.8	10.0	7.8
18	18.0	16.0	14.0	12.1
21	21.0	19.0	16.6	14.4
24	24.0	21.2	19.6	17.9